

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 11 (previously amended). A control loop, comprising:

a phase shifter for producing an output with a first clock phase;

a phase detector for detecting a phase difference between a second clock phase of a data signal and the first clock phase, said phase detector producing an output signal based on the detected phase difference;

a charge pump for integrating the output signal of said phase detector, said charge pump producing a regulation signal for said phase shifter; and

said phase shifter changing over a phase regulation direction at predetermined switching points based on said regulation signal;

said changing over of said phase regulation direction being performed with a hysteresis behavior.

Claim 12 (amended). The control loop according to claim 11, in combination with a delay locked loop circuit, said delay locked loop circuit having a delay locked loop control loop including said phase shifter, said phase detector, and said charge pump.

Claim 13 (previously amended). A method for producing a clock signal, which comprises:

detecting a phase difference between a clock phase of a first input signal and a clock phase of a first output signal of the phase shifter;

producing a second output signal based on the detected phase difference;

producing a second input signal for the phase shifter by integrating the second output signal; and

changing a phase regulation direction of the phase shifter at predetermined switching points based on the second input signal, the changing over of the phase regulation direction being performed with a hysteresis behavior.

Claim 14 (currently amended). A phase shifter for producing an output signal, which comprises:

a circuit for receiving an input signal having a phase;

said circuit also for producing an output signal having a phase;

~~the output signal selected from the group consisting of a proportional signal essentially proportional to the phase of the input signal and an inversely proportional signal essentially inversely proportional to the phase of the input signal,~~

~~said circuit being designed such that the output signal changes between the proportional signal and the inversely proportional signal at predetermined switching points based on the input signal of said charge pump~~

said circuit designed for changing a phase regulation direction of the phase shifter at predetermined switching points based on an input signal, the changing over of the phase regulation direction being performed with a hysteresis behavior.